



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
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ATLANTA GEORGIA 30303-8960

November 22, 2010

Dr. Gregory J. Thorpe, Ph.D., Manager
Project Development and Environmental Analysis Branch
North Carolina Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

SUBJECT: Federal Draft Environmental Impact Statement for NC 109 Corridor
Improvements, Davidson and Forsyth Counties, North Carolina; TIP No.: R-2568C;
FHWA-E40835-NC; CEQ No.: 20100394

Dear Dr. Thorpe:


The U.S. Environmental Protection Agency (EPA) Region 4 Office has reviewed the subject document and is commenting in accordance with Section 309 of the Clean Air Act (CAA) and Section 102(2)(C) of the National Environmental Policy Act (NEPA). The Federal Highway Administration (FHWA) and the North Carolina Department of Transportation (NCDOT) are proposing to improve the NC 109 Corridor from north of SR 1798 (Old Greensboro Road) to I-40/US 311 in Davidson and Forsyth Counties, N.C. The proposed project would involve construction of different improvements to a 4-lane facility, incorporating different widening and new location alternatives for a total length of approximately 9.5 miles.

The proposed project has been in the NEPA/Section 404 Merger process and EPA has actively participated on the Merger team. EPA notes the following milestones: EPA concurred on Purpose and Need (Concurrence Point 1) on September 15, 2004; Detailed Study Alternatives Carried Forward (CP 2) on August 15, 2006; and Bridging and Alignment Review (CP 2A) on April 28, 2009. There are 5 build alternatives that the Merger team to have carried forward in the Draft Environmental Impact Statement (DEIS). FHWA and NCDOT have not identified a preferred alternative. EPA has attached to this letter detailed technical review comments on the potential environmental impacts from the proposed project (See Attachment A).

EPA has rated the Draft Environmental Impact Statement (DEIS), Environmental Concerns (EC-1), and has not identified any potential environmental impacts requiring substantive changes to a preferred alternative. Additionally, the DEIS adequately sets forth the environmental impacts of the alternatives under consideration by the Merger team and no further analysis or data collection is believed to be necessary at this time.

However, EPA is requesting specific supporting documentation regarding MSATs and further consideration of specific avoidance and minimization measures for wetlands and streams impacts. EPA also requests specific wetland and water quality ratings be provided at the next Merger team meeting. EPA recommends that greater consideration should also be given to minimizing impacts to floodplains and terrestrial forests. If there are any questions concerning these comments, please contact Mr. Christopher A. Militscher of my staff at (919) 856-4206 or by e-mail at militscher.chris@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "H. Mueller", with a stylized flourish at the end.

Heinz J. Mueller, Chief
NEPA Program Office

Attachment: Tech Review Comments

cc: C. Coleman, FHWA
S. McClendon, USACE-Wilmington
B. Wrenn, NCDWQ

Attachment A
NC 109 Corridor Improvements
Davidson and Forsyth Counties, N.C.
Technical Review Comments

Jurisdictional Streams and Wetlands

The DEIS includes jurisdictional streams and wetlands for the 5 build alternatives, (i.e., Alternatives 1, 3, 4, 5 and 6) as follows:

Alternative 1: 4,432 linear feet and 0.58 acres
Alternative 3: 7,757 linear feet and 0.15 acres
Alternative 4: 9,259 linear feet and 0.21 acres
Alternative 5: 10,729 linear feet and 0.16 acres
Alternative 6: 6,500 linear feet and 0.14 acres

EPA environmentally prefers Alternatives 1 or 6 due to the substantial reduced jurisdictional stream impacts. Salem Creek is currently listed on the 303(d) list of impaired waters from Salem Lake to Middle Fork Creek (Page 3-43 of the DEIS). This impairment is due to impaired biological integrity. Water quality classifications for other streams in the project study area are identified in Table 3-17 of the DEIS, and include WS-III and Class C waters. The DEIS does not specifically identify the quality of wetland systems using either the North Carolina Division of Water Quality (DWQ) or the North Carolina Wetlands Assessment Methodology (NCWAM) to be impacted from the different alternatives. From direct field observations by the EPA Merger Team representative, none of the wetlands investigated on April 28, 2009, were considered to be very high quality. However, this information should be provided at the Concurrence Point 3, Least Environmentally Damaging Practicable Alternative (LEDPA) meeting.

The summary of hydraulic recommendations involving stream and wetland crossings is itemized in Table 4-7. Bridges have been recommended at a number of locations, including Abbott's Creek, Fiddler's Creek, UT South Fork Muddy Creek, and Brushy Fork. Depending upon the alternative chosen as the LEDPA, the length and location of these bridges is different.

Floodplains

Floodplain impacts are discussed in the DEIS on Page 4-19 and in Table 4-6. Floodplain (100-year) impacts from the different alternatives are as follows:

Alternative 1: 10.44 acres
Alternative 3: 9.94 acres
Alternative 4: 5.87 acres
Alternative 5: 10.46 acres
Alternative 6: 5.35 acres

Alternative 6 has the lowest impact to the 100-year floodplain. EPA believes that flooding issues in the Piedmont area of North Carolina have become a significant issue and the FHWA, NCDOT and other agencies should consider this environmental concern during its selection of the LEDPA.

Air Quality

The DEIS details the State Implementation Plan (SIP) consistency on Page 4-13 of the DEIS. The proposed project is believed by FHWA and NCDOT to be consistent with the current transportation conformity determination for PM 2.5 and Carbon monoxide (CO). Mobile Source Air Toxics (MSATs) are discussed on Pages 4-14 and 4-15 of the DEIS. A more detailed discussion of the qualitative MSAT analysis for the proposed project is included in a referenced technical memorandum. This detailed information was not included in the appendices for agency review. EPA requests a copy of this technical memorandum prior to the issuance of a Final Environmental Impact Statement (FEIS).

Terrestrial Forests

Terrestrial plant community impacts are detailed in Table 4-8 of the DEIS. Impacts to terrestrial forests range from 30.94 acres for Alternative 1 to 131.21 acres for Alternative 3. As with other cumulative impacts in the Winston-Salem and surrounding area, this area of the State is becoming 'deforested' at an accelerated pace in the last 10 to 20 years. Fewer mature oak-hickory forests remain in the project study area and other human development impacts have added to potential significant 'greenspace' losses. These losses result in potentially more intensified air quality and water quality issues. EPA requests that FHWA and NCDOT consider restriction of the right-of-way construction to the smallest reasonable footprint to preserve mature terrestrial forests areas wherever practicable, and also determined to be safe for the travelling public.

Human Resource Impacts

The DEIS identifies the human resource impacts in Section 4 of the DEIS. Alternative 1 is shown by NCDOT and FHWA to have the greatest impact to residences and businesses (204), prime farmlands (230.13 acres), churches (3), and noise receptors (97). Alternative 6 has half of the residential and business relocations as does Alternative 1 (102), less prime farmland impacts (124.98 acres), less noise receptor impacts (61), and fewer church impacts (2). None of the Detailed Study Alternatives are expected to have a disproportionate and adverse effect to minority or low income populations per the Environmental Justice (EJ) analysis (Pages 4-5 and 4-6). Alternative 6 also has fewer impacts to potential hazardous material sites (i.e., Three vs. 25 for Alternative 1).